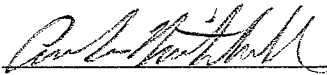


Appendix F. 2004 Yellowstone National Park Aviation Operations Management Guidelines.

Yellowstone National Park

Aviation Operations Management Guidelines

Submitted by:

Assistant Fire Management Officer:  Date: 9/20/04

Reviewed by:

Fire Management Officer:  Date: 9/20/04

Recommended by:

Chief Park Ranger:  Date: 9-21-04

Approved by

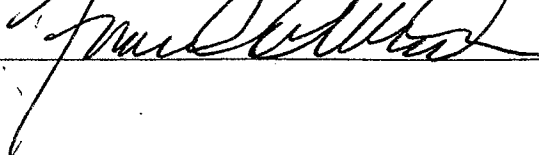
Superintendent:  Date: 12/29/04

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Abbreviations

ALSE	-	Aviation Life Support Equipment
AMC	-	Aviation Management Council
AMIS	-	Aviation Mishap Information System
ARA	-	Aircraft Rental Agreement
AURM	-	Aviation User's Reference Manual
CFI	-	Certified Flight Instructor
CFR	-	Code of Federal Regulations
DM	-	Departmental Manual
DOI	-	Department of the Interior
FAA	-	Federal Aviation Administration
FAR	-	Federal Aviation Regulations
IFR	-	Instrument Flight Rules
IHOG	-	Interagency Helicopter Operations Guide
IMRO	-	Intermountain Regional Office
NFPA	-	National Fire Protection Association
NPS	-	National Park Service
NTSB	-	National Transportation Safety Board
<hr/>		
OAS	-	Office of Aircraft Service
OMB	-	Office of Management and Budget
OPM	-	Operational Procedures Memoranda
PFD	-	Personal Flotation Device
PIC	-	Pilot-in-Command
PPE	-	Personal Protective Equipment
RAM	-	Regional Aviation Manager
USFS	-	United States Forest Service
VFR	-	Visual Flight Rules

I. INTRODUCTION AND PURPOSE

This plan is intended to provide detailed guidance to personnel engaged in aviation activities in Yellowstone National Park. It incorporates the policies contained in NPS *Management Policies*, and the instructions, requirements and operational policies contained in Director's Order #60. The NPS *Management Policies*, D.O. #60, and the *Intermountain Region Aviation Management Policy and Reference Manual*, as they apply to aviation, are all supplemental to, and must be consistent with, policies, procedures and instructions issued by the Federal Aviation Administration (FAA) and the Department of the Interior (DOI). Where appropriate, FAA and DOI policies, procedures and instructions are cited or attached as appendices to this manual. Otherwise, they may be accessed through the Internet or through other sources indicated in the text.

This plan applies to flight services other than those acquired on a seat-fare basis from commercial air carriers (e.g., Delta, United, etc.) Because Park management is responsible for aircrew members and passengers onboard aircraft under its operational control, this plan is applicable to Yellowstone employees, volunteers, persons supervised by Yellowstone employees, and support service contractors (all hereinafter referred to as NPS employees). Persons employed by, and whose work is directed solely by, cooperators or contractors are exempt from provisions of this plan except when their duties include utilization of flight services under the operational control of the NPS. In that event, such persons will be subject to the policies and procedures contained herein.


A. NPS Management Policies

The section of NPS *Management Policies* dealing with aviation management reads as follows:

Aircraft Use

A variety of aircraft types, including military, commercial, general aviation and aircraft used for NPS administrative purposes, fly over parks. Noise and sonic booms resulting from over-flights have the potential to adversely affect park resources and values such as fragile cultural resources, sensitive wildlife species, and the natural quiet of park settings and to interfere with their enjoyment by visitors. The National Park Service will monitor the effects of aircraft over-flights on park resources and values and on visitor enjoyment. Since the National Park Service has no direct authority or jurisdiction over airspace above parks, it will actively seek the assistance of the Federal Aviation Administration and appropriate agencies of the Department of Defense to resolve over-flight concerns and to prevent, eliminate, or minimize the derogation of park resources and values associated with over-flight activity. The 1984 interagency agreement among the National Park Service, the Federal Aviation Administration, and the Fish and Wildlife Service establishes agency responsibilities and procedures to be followed to address site-specific aircraft over-flight concerns.

Official NPS use of aircraft in and over parks will be limited to flights needed to support or carry out emergency operations or essential management activities in cases when there are no practical alternatives or when alternative methods would be unreasonable considering such factors as safety, effects on resources and



Aviation activities within the park can be broken into two categories, fixed-wing and rotor-wing. Use of fixed wing aircraft occurs on a year round basis primarily for wildlife management and research with occasional use on fire detection. Use of rotary wing aircraft occurs during the summer months primarily for fire management activities, project work for maintenance, medical evacuation and occasional use for wildlife management and administrative over-flights. It should be noted that activities occur throughout the park in all weather conditions and terrain varying from open water to very rugged mountains and elevations from 5200' to 11,400'.

Private or commercial aircraft may not land in Yellowstone Park and must comply with all applicable FAA airspace use regulations.

The Yellowstone aviation program is constantly evolving to meet management needs. Future evaluation and review may indicate the need to expand the aircraft procurement system toward fleet owned aircraft or and expanded rental system.

B. Environmental Concerns.

Noise and visual impacts resulting from aircraft operations are a concern. The Yellowstone National Park Aviation Plan considers impacts on wildlife, the natural sound

B. Passenger Categories

Official Passengers

1. Officers and employees of the Federal Government traveling on official business;
2. Members of Congress and employees of congressional committee staffs whose work relates to Departmental programs;
3. Non-Federal passengers when engaged in missions which enhance accomplishment of an NPS program. Examples are personnel of cooperating State, county, or local agencies, representatives of foreign Governments, cooperating non-Government organizations, and contractors' representatives.

Unauthorized Passengers

All persons who are not official passengers will be considered unauthorized and may not use any aircraft owned, operated by, or flown on behalf of NPS. Also included in this group are those official passengers who have failed to meet the Basic Aviation Safety currency requirements articulated in OPM 04-04, Section 5.

Passengers/Cargo

Only persons and cargo required to accomplish specific missions are permitted onboard aircraft under operational control of NPS. All cargo will be transported in accordance to regulations contained in the Interagency Aviation Transport of Hazardous Materials Handbook

Senior Executive Service

All flights involving SES employees must be managed in compliance with OMB circular 8126 and direction found in the Intermountain Region Aviation Management Plan.

III. PROGRAM MANAGEMENT

A. Organization and Responsibility

- The Park Superintendent ensures development of a Park Aviation Management Plan and that park aviation activities are conducted in compliance with applicable policy/directives, is accountable for including aviation needs in program development; ensures that appropriate aviation training is completed; ensures aviation program planning requirements are met; ensures mitigation of safety hazards; ensures that significant operational aviation problems are reported to the RAM; ensure that aviation resources are procured, managed and operated within DOI requirements.
- The Chief Park Ranger approves flight requests based on criteria contained in this plan, and oversees implementation of the plan as delegated to the Park Aviation Manager.
- The Park Aviation Manager is a collateral duty of the Park Fire Management Officer and is responsible for the implementation of the Park Aviation Management Plan (AMP); coordinates the planning and completion of project plans and hazard/risk assessments; ensures that aircraft and pilots are appropriately approved for the mission; and approves aircraft payment documents.
- The Assistant fire Management Officer serves as the Assistant Park Aviation Officer and as the Park Aviation Officer in the absence of or as delegated by the FMO, performing all the functions and duties previously outlined.
- The Helicopter Foreman serves as a project manager. The Foreman plans and manage aircraft use according to applicable directives and policies; develops and submits project plans and hazard/risk assessments; assigns fixed-wing or helicopter managers to projects; compiles manifests; completes and may endorse aircraft payment documents.

- The Pilot-in-Command (PIC) is responsible for conducting flight operations in accordance with applicable regulations, policy, and directives; responsible for maintaining proficiency and currency appropriate to the missions performed; responsible for the safety of the aircraft and personnel onboard and has the sole authority for operation of the aircraft; completes load calculations; provides flight safety briefings; reports unsafe operations, conditions and situations, using the AMIS system; complies with ALSE requirements; may endorse aircraft payment documents.
- The Fixed-Wing/Helicopter Manager is responsible for coordinating, scheduling, managing, and supervising individual aviation missions; ensures individual flights are conducted within scope of contract and policy requirements; reports contract compliance problems; prepares and routes payment documents; verifies aircraft and pilot are appropriately approved for the mission.
- Fire Management Dispatchers are responsible for Procuring aircraft, dispatching and flight following aircraft in accordance with established policies. In addition they assist with payment and record keeping activities.
- Communications Center Dispatchers assist with flight following and lifeflight ordering on an as needed basis.
- Employees are responsible for knowing and following applicable aviation policy and directives. They will maintain currency by attending required aviation training in accordance with DOI and NPS policies; report potential and actual safety or operational problems; participate in the completing of manifests; and assume responsibility for their own safety as well as that of others, including the use appropriate personal protective and life support equipment.

B. Evaluation and Monitoring

REVIEWS

Periodic internal reviews of aviation operating procedures and readiness are necessary in order to enhance safety, identify program strengths and weaknesses; help to identify fiscal and personnel needs, and ensure the efficient use of aircraft under NPS control. These reviews are supplemental to those conducted periodically by the Department.

Park Aviation Program Review: The Intermountain Regional Office has developed a comprehensive park aviation program review process and it is the IMR goal to review each park aviation program at least once every five years. The annual schedule of these reviews will be developed by mutual agreement between the park superintendents and the RAM. Notwithstanding this process, park superintendents may request a regional review at anytime less than the five-year cycle.

Facility Inspection: Superintendents will ensure that readiness inspections are conducted annually for all permanent rotary and fixed wing bases. This requirement shall include permanent helispots in those parks with rotary wing operations. The readiness evaluation process found in the IHOG shall be the basic tool for evaluating rotary wing facilities. The periodic facility inspections conducted by the Federal Aviation Administration may serve in lieu of a separate review. The Assistant Fire Management Officer will inspect intermittent facilities, such as backcountry helispots at least once every three years. Inspections will be based on criteria articulated in Chapter 8 of the IHOG and documented on a 10-343, Case Incident report. A copy of each evaluation/inspection must be forwarded to Park Aviation Manager.

C. Aviation User Training

All Yellowstone personnel, VIP's, and cooperators involved in the use or control of NPS aviation resources must receive the appropriate level of aviation safety training as articulated in OPM 04-04. Standards for qualifications and currency for special use applications are found in various OAS Handbooks and interagency guides. Special Use

is defined as flights that require additional pilot qualifications, aircraft equipment or passenger safety equipment.

NPS employees who fly over-water missions will complete Water Ditching and Survival training as required.

D. Management of Aviation Mishap

Accident

By law the NTSB is responsible for the investigation of aircraft Accidents. All aviation accidents will be immediately reported to the Intermountain Regional Aviation Manager at **303-969-2657** (cell 720-320-6264) and OAS at 800-464-7427. The RAM will notify the NTSB.

Aviation Mishaps Reporting

All aviation mishaps must be reported within (3) days to the Regional Aviation Manager. Incidents shall be documented via the electronic SAFECOM process. SAFECOM should be used to report and condition, observance, act, maintenance problem or circumstance which has the potential to cause an aviation related mishap. SAFECOM reports should be submitted through the Park Aviation Manager who will subsequently notify OAS and the RAM. Park employees requiring assistance in completing the SAFECOM should contact the Park Aviation Manager.

E. Policy Waivers

The Yellowstone aviation program has a number of unique aspects that require several specific policy waivers. All waivers are procured through policy procedures articulated in the Intermountain Region Aviation Management Plan and DM 350 1.9. Appendix D, is a summary of those waivers.

IV. DISPATCHING AND CONTROLLING FLIGHTS

A. Procurement

All Yellowstone aircraft services required shall be acquired through the Mammoth Fire Management Dispatch and will comply with the OAS procurement process except as outlined below. Parks may utilize NPS operated aircraft or aircraft currently on the Aircraft Rental Agreement (ARA) list without further procurement action. Cooperator aircraft may be obtained only as specified in OAS approved agreements. Park resource managers wishing to procure other aircraft must submit Form OAS-20, specifying the services desired, to the Park Aviation Manager. Approved sources for flight services are (1) DOI fleet aircraft, (2) USFS fleet aircraft, (3) aircraft rental on an hourly basis under an OAS Aircraft Rental Agreement (ARA), (4) OAS contract aircraft, (5) aircraft charter required to meet bona fide emergencies, and (6) cooperator aircraft covered by an OAS approved agreement.

Unauthorized Procurement

Unauthorized acquisition of aviation services must go through a ratification process and will include a \$1000 penalty payment imposed by OAS. Specific details can be found in 353 DM 2 and the Intermountain Region Aviation Management Plan.

End Product/Service contracts

These project specific contracts can be used to obtain services and products such as aerial

Special Use

Specific NPS and OAS authorization is required for Contract, Rental and Charter Aircraft performing Special Use Missions. "Special Use", is defined as those operations in which special pilot qualifications and techniques, special aircraft equipment, personal protective equipment and/or training are required to enhance the safe transportation of personnel and property. Examples of such activities include wildland fire operations, long-line operations, short-haul, animal capture, aerial ignition, law enforcement, rappelling and external load operations

Procurement of Flight Services from Other DOI Bureaus

Prior to use of fleet aircraft assigned to other DOI Bureaus, park units are responsible for determining payment rates for the use of the aircraft, pilot services, per diem, etc., with the provider of the service. A written agreement between the Bureaus is usually required.

Procurement of Flight Services from Non-Federal Public Agencies

It is federal policy not to compete with private industry. Procurement of and reimbursement for flight services from non-Federal public agencies is not authorized unless necessary to respond to an imminent (emergency) threat to life or property and no service by a commercial operator is reasonably available to meet the threat. This decision must be documented in writing and made part of the permanent incident record. Higher cost of the potential private sector service is not sufficient sole justification for non-selection of a commercial vendor

Research Work Orders/Cooperative Agreements/Support Services Contracts.

Research Work Orders/Cooperative Agreements/Support Services Contracts which involve the use of flight services must contain language that persons onboard aircraft under operational control of NPS are subject to DOI policies, and the *Intermountain Aviation Reference Manual* and the *Yellowstone Aviation Management Plan*.

B. Flight Requests

Regardless of purpose, or procurement path followed, Fire Management Dispatch, or in the event Fire Management is not staffed, the Communications Center, must always be notified of aircraft use in the park prior to mission initiation.

Non-Routine Flight

'Non-routine' flights are for emergencies only and are exempted from the normal flight-approval process. Authority to launch upon request is delegated to the Fire Management Dispatcher, District Rangers, Sub-district Rangers and Emergency Operations Duty Officer, generally the FMO, AFMO or Helitack Foreman. Because of their life or health-threatening nature, these types of flights cannot be scheduled in advance and will occur in approved and primitive landing zones.

Administrative Emergencies: Such emergencies may include life threatening situations, involve public health, park closure, property protection (gross damage as from floods or high winds) and endangered species. Initial attack fire suppression responses and law enforcement activities are also included.

Search and Rescue Operations: SAR missions are emergencies and will be treated as such. Requests may come from any park employee knowledgeable of the situation, or from a cooperator, through Emergency Operations dispatch.

Medical Evacuations: The on-scene medical provider has the authority to launch lifeflight services through Emergency Operation Dispatch if in their judgement such service is in the best interest of the patient. Helispot management will be the responsibility of the on-scene personnel.

EXCEPTION: NIGHT AEROMEDICAL FLIGHTS REQUIRE APPROVAL OF THE CHIEF RANGER (may be delegated to FMO/Park Aviation Officer).

Routine Flight

Routine flights are defined as those that can be scheduled in advance and if the flight does not occur, there will be no significant threat to life property, park resources or services, and an alternate flight at a later time can be scheduled.

Examples of routine flights are activities such as NPS and non NPS research, fire reconnaissance, routine maintenance, helicopter training activities, special use and filming permits, routine utility maintenance performed by utility companies, concession activities, VIP orientation, non-emergency personnel transports, administrative uses, contract work and other similar operations.

ALL ROUTINE FLIGHTS AND HELICOPTER LANDINGS MUST RECEIVE WRITTEN APPROVAL FROM THE CHIEF RANGER.

C. Flight Approval Process

Procurement of aircraft services for non-routine uses will be as follows:

- 1) Notify Park Dispatch (Communications Center) who will notify a member of the Fire Management Office who will make the required contacts to obtain the aircraft desired. The Fire Management Office will ensure that appropriate contacts are made to management concerning the non-routine use.
- 2) Should non-routine aircraft use, specifically lifeflight activity, occur through another channel, the Park Dispatch and Fire Management Office must be notified as soon as possible, that a lifeflight will be entering the park for an emergency mission.

Routine Flight Requests

All requests for routine helicopter flights must have the Park '*Aircraft Use Request Form*' completed and signed by the Chief Ranger (appendix A).

All helicopter operations that require a landing in designated wilderness must complete the '*Minimum Requirement Analysis Worksheet*' (appendix D).

The person requesting the flight should determine the date of the flight, time and location of flight origin, duration or destination, nature of flight, personnel and cargo to be carried,

ICS organization established to manage the incident. OAS 352 DM 6 'Aviation Mishap Notification Investigation and Reporting Handbook' will guide procedures in this event. With the FAA Flight Service Station being the entry point of information into the National SAR system and notification of the Air Force Rescue Coordination Center (AFRCC) who, in turn, will coordinate with the appropriate state and county resources.

In extended search situations, an ICS Management Team will be established. In that case, the Fire Management Officer will coordinate aviation-related matters for the search.

Any Park Service employee who has reason to believe an aircraft has crash-landed in the Park should immediately notify Park Dispatch. Those offices will take the necessary steps to initiate action.

Once the aircraft is located and it has been determined that an accident has occurred, action at the scene will follow the instructions given in, 'OAS Aviation Pre-Accident Plans and Flight Hazard Maps,' and 'Guide for Witnesses of Aircraft Accidents.'

Should the aircraft be located and it is determined that an accident has not occurred, the

same dispatching, management and payment procedures will be followed.

Approval

REQUIRES APPROVAL FROM THE CHIEF RANGER.

Management

An aircraft manager or other qualified individual will accompany the aircraft. This individual will record flight time, administer the contract, and direct all operations involving the Yellowstone aircraft. If the aircraft 's under contract the manager will have project inspector delegation.

Flight Following

Flight following is the systematic tracking of aircraft flight activities. Flight following requirements are 15 minute intervals for helicopters and 30 minutes for fixed wing aircraft. Park Dispatch will flight follow until a FAA flight plan can be filed or contact is made with another agency and flight following can be done through them.

Method of Payment

Payments will be based on information recorded daily on the Aircraft Use Report (OAS-23), Record of Aircraft Order, or Daily Flight Report-Invoice forms. These records will be sent to the Park Aviation Officer, his representative, or the contracting officer. The forms will be examined, charges entered and submission for payment made.

C. Temporary Release from Contract

Should the circumstances arise benefiting the government, contract aircraft may be temporally released from the contract following review by the Park Aviation Officer, OAS Contracting Officer, and with subsequent approval by the Chief Ranger. Standby aircraft must be available before a temporary release is granted or the return date of the contract aircraft delineated in the release agreement.

D. Airspace Restrictions

All requests and use of Temporary Flight Restrictions will comply with the Interagency Airspace Coordination Guide. A Temporary Flight Restriction is an area of airspace (defined laterally and vertically) which has temporarily or partially closed to non-participatory aircraft for a specified period of time. Their purpose is to deconflict airspace in an effort to promote safety. They are most often associated with wildfire suppression efforts. All TFR requests will be initiated by the Fire and Aviation Management Operation. **No other aircraft may enter the TFR without permission of those parties managing the TFR and associated incident.** Inquiries must be directed to Emergency Operations Dispatch.

VI. DOCUMENTATION

A. Incident/Aviation Hazard/Maintenance Deficiency Reporting

All unplanned events that do not damage the aircraft (INCIDENTS) or any condition that compromises the safety of personnel or resources engaged in aviation activities

D. Annual Air Operations/Aviation Reports

The report will be prepared by the Park Aviation Officer as directed by the Regional Aviation Officer or Superintendent and among other things will include a (1) helicopter use report, (2) fixed-wing use report, (3) Aero-medical flight listing, and (4) air tanker use report.

VII. AVIATION OPERATIONS**A. Aircraft Data Cards**

No aircraft will be used on NPS business unless a current aircraft data card (USDA Form 57004 or USDI/OAS Form 3A, B or C) is displayed. NOTE: USDA (U.S. Department of Agriculture) and USDI (U.S. Department of the Interior) cards are interchangeable, i.e., aircraft carded under one agency is authorized for use by the other.

B. Pilot Authority

All pilots flying aircraft on official DOI business will carry a current Pilot Qualification Card (USDA-Forest Service Form 570G-3, GPO Form 907-259 or DOI/OAS Form 30A, B or C). The pilot of the aircraft will have the final say as to whether any aspect of the flight operation can be safely performed. Conversely any flight manager, passenger, or other pertinent DOI employee also has the discretion of canceling or postponing a mission if it becomes obvious that the mission cannot be successfully or safely completed. The Park Aviation Officer is to receive immediate notification of such a situation and initiate a SAFECOM, OAS-34.

C. Employee Prerogative

NPS personnel while performing their duties may elect without fear of reprisal not to fly under any condition they consider unsafe. It is the employee's responsibility to immediately report to the Park Aviation Officer any aviation hazard that compromises the safety of personnel or equipment via a SAFECOM (Form OAS-34).

D. Crew Duty Time Limitation

Activities must be conducted in accordance with 351 DM 3.5(A)(2), and/or the applicable contract.

E. Communications

Aviation communications will be generally managed by Fire Management Dispatch, call sign "700 Fox". On those occasions when Fire Management Dispatch is not staffed, communications will be managed by the Yellowstone Communications Center, call sign "700". All aircraft obtained for transport of park personnel over or within the park will be equipped with a radio capable of communicating with the Fire Management Dispatcher. In addition, every aircraft flight conducted with an employee aboard will

prior to approaching the vicinity of the incident. In addition air traffic in the form of air tankers, lead planes, air attack and infrared flights will be transecting non-restricted park airspace enroute to and from the incident. It is imperative that all park aviation users file flight plans with emergency dispatch prior to take-off during these critical periods of high aviation use.

All passengers during take off will follow the practice of "sterile cockpit" or silence. This will also be the case during landing and critical phases of all missions, including special use missions.

F. Flight Following Procedure

Fixed Wing: A written flight plan will be filed for flying in and around the park. Radio check-in by position and direction of flight must be reported every 30 minutes or whenever a deviation in filed plan is to occur for **all** flights.

Rotor Wing: A written flight plan should be filed for flights in and around the park. Radio check-in by position and direction of flight will be reported every 15 minutes or whenever a deviation in filed plan is to occur for **all** flights.

G. Flight Planning

When pilots on park business file a flight plan, a copy will be kept on file in the Fire Management Office and/or Park Dispatch. Flight planning is not to be confused with *mission planning*. See Rotorwing Specifics.

H. Flight Hazard Maps

prepared, with a copy left at the point of departure and a copy will be sent to the Fire Management Dispatch. The manifest will minimally include the names and weights of passengers, the weight of cargo, the date and pilot's name. Any of a variety of available manifest forms is acceptable. Manifest changes will be left at subsequent points of departure.

L. Load Calculations

The pilot (other than those provided by commercial airlines) will complete load calculations prior to each flight. These calculations will consider actual weights of cargo and passengers, center of gravity, etc., relative to environmental conditions and performance capabilities of the aircraft. For helicopters, refer to IHOG Chapter 7. For fixed wing aircraft refer to the specific aircraft's weight and balance charts. Load calculations and manifesting OAS Form 67, 'Helicopter Load Calculation' will be used for rotary-wing aircraft while comparable forms are used for fixed-wing flights. Applicable FARs and OAS DM and OPMs will be observed.

M. Transport of Hazardous Materials

Transport is allowed in accordance with the exemption granted DOI by the Department of Transportation, provided activities are conducted as stipulated in the Interagency Aviation Transport of Hazardous Materials Handbook. A copy of that exemption and the handbook must be in the aircraft and all involved employees must have completed the mandatory Hazmat training. Additionally, the pilot must be notified in writing of the hazardous material being carried (per the DOT waiver). Incapacitating aerosol such as pepper spray, mace, etc., may be carried internally in an aircraft only if it is secured in a sealed non-porous container (i.e. ammo can).

Commissioned rangers may carry small arms ammunition on board an aircraft as long as the DOT waiver and RM-9 are complied with. The phrase "readily available" as utilized in both the DOT waiver and DOI aviation policy in describing ammunition for handguns is interpreted to allow a chambered round. However the Pilot-in-Command may override this policy at their discretion as per Section VII B of this document, **Pilot Authority**.

N. Fuel Handling

Fuel handling must be conducted in accordance with the OAS Aviation Fuel Handling Handbook. The Handbook does allow for hot fueling and provides the required procedures. Hot fueling is allowed in Yellowstone Park as per this written policy. The IHOG updates should be consulted for policy in this area as policy in this area is evolving.

Fuel staged at helispots is vender owned; however the National Park Service is responsible for containment and other environmental protection measures.

O. Fuel Reserves

Aircraft must maintain fuel reserves as stipulated in FAR 91.151 and FAR 91.167. Policy states that a 30-minute reserve is required for all aircraft.

P. Transportation of Dogs

Transportation of dogs is permitted as per IHOG Chapter 17, section X.B. All canines shall be muzzled secured to a hard point in the rear of the helicopter and accompanied by a handler. Owners or attendants are responsible for removing litter from aircraft after such transports.

Q. Smoking

Smoking is not permitted.

R. Risk Analysis

A programmatic Risk Analysis (appendix B) will be conducted for each type of flight activity to ascertain whether or not aviation is the best tool to accomplish the stated objectives. In addition a Risk Analysis will be conducted for special use flights on an individual flight basis. The IHOG states in Chapter 3, Section II, that the Superintendent is responsible for the "go/no go" decision associated with high-risk activities. The Yellowstone Park Superintendent has delegated this authority to the Park Aviation Manager. Such activities include, but are not limited to, power on landings, animal capture, low-level recon/telemetry and short-haul.

S. Pilot Briefings

The pilot shall receive a comprehensive briefing from the project inspector prior to each mission. At this time the Load calculation, Manifest and Risk Analysis will be reviewed. Fuel requirements will be discussed, as well as mission objectives, duration, weather, itinerary, flight hazards, communications procedures, coordinates, prominent landmarks, emergency procedures and any other pertinent information. Such information may

Power-on Landings

Power-on Landings are defined as those landings where the aircraft has its weight supported either partially or completely by the rotor system rather than the ground. They include Toe-in, Single-Skid and Hover-step (Step-Out) Landings. These landings, as defined below, are prohibited except when approved in writing through the waiver process by the OAS Director (351 DM 1). Yellowstone National Park has such a waiver.

These techniques are a vital option for the SAR program. Authority for their use is delegated to the SAR Incident Commander.

Toe-in: Landings that are used to drop off or pick up passengers or cargo by resting the helicopter on the toes of the skids.

Single-Skid: Landings that are used to drop off or pick up passengers or cargo while holding the helicopter with one full skid on the ground and the other suspended in the air.

Hover Step (Step-Out): Landings that are used to drop off or pick up passengers and cargo (other than rappel/short haul) while holding the helicopter in a hover.

Short-haul

These operations shall be conducted in accordance with the DM's, NPS Aviation Policy, the DOI *Short-haul Handbook* as well as the Yellowstone Short-haul Plan.

Over Water Flights

All flights will avoid crossing open water whenever possible. In those cases when crossing water cannot be avoided, the aircraft will maintain gliding distance to shore or have appropriate PPE and carry only personnel that are trained in water ditching procedures per JROC Chapter 9 and the ALE Handbook.

Appendix A

AIRCRAFT USE REQUEST FORM

TAKEN BY

DATE OF ORDER	BILLING ADDRESS:
ORDERING INDIVIDUAL	
DIVISION/AGENCY	
TELEPHONE NUMBER	
ACCOUNT NUMBER	

Appendix B

Yellowstone Aviation Risk Analysis**Method**

Is this flight necessary?	Yes	No
Is the mission plan in writing?	Yes	No
Are all participants current regarding appropriate aviation safety training?	Yes	No
Are communications adequate?	Yes	No
Is flight following established?	Yes	No
Is this the best way to accomplish project objectives?	Yes	No
Have all passengers and cargo been manifested?	Yes	No
If a backcountry landing is anticipated, have you secured approval?	Yes	No

Medium

Is there a potential for airspace conflict? Has it been mitigated?	Yes	No
Are all the hazards identified and have you made them known?	Yes	No
Can mission objectives be achieved without resorting to low level flight?	Yes	No
Is the weather reasonable?	Yes	No
Are the winds predicted to remain reasonable?	Yes	No
Can the mission be accomplished in the allotted time?	Yes	No

Man

Is the pilot carded for the mission?	Yes	No
Is the pilot comfortable with the mission requirements?	Yes	No
Are you comfortable with the pilot's ability to complete the mission?	Yes	No
Is one individual in charge of the requesting party? Who?	Yes	No
Are you driven by an overwhelming sense of urgency?	Yes	No
Can you justify your actions?	Yes	No
Do you have an escape route?	Yes	No
Has a load calculation been completed?	Yes	No
Do all passengers have appropriate PPE?	Yes	No
Will the flight be conducted within the pilot's duty limitations?	Yes	No
Are adequate numbers of personnel assigned to conduct the mission?	Yes	No
Have all participants received an aircraft briefing from the pilot?	Yes	No

Appendix C

Mission Planning Form

START TIME:

PROJECT NAME:

DATE:

LEG #1	Location		Who & When:
	Hobbs:		
LEG #2	Location		Who & When:
	Hobbs:		
LEG #3	Location		Who & When:
	Hobbs:		
LEG #4	Location		Who & When:
	Hobbs:		
LEG #5	Location		Who & When:
	Hobbs:		
LEG #6	Location		Who & When:
	Hobbs:		
LEG #7	Location		Who & When:
	Hobbs:		
LEG #8	Location		Who & When:
	Hobbs:		
LEG #9	Location		Who & When:
	Hobbs:		
LEG #10	Location		Who & When:
	Hobbs:		
LEG #11	Location		Who & When:
	Hobbs:		
LEG #12	Location		Who & When:
	Hobbs:		
LEG #13	Location		Who & When:
	Hobbs:		
LEG #14	Location		Who & When:
	Hobbs:		
LEG #15	Location		Who & When:
	Hobbs:		
LEG #16	Location		Who & When:
	Hobbs:		
LEG #17	Location		Who & When:
	Hobbs:		
LEG #18	Location		Who & When:
	Hobbs:		

MINIMUM REQUIREMENT ANALYSIS WORKSHEET

YELLOWSTONE NATIONAL PARK



YELL 6/20043)

PROPOSED ACTION: _____ **DATE:** _____

LEAD PERSON(S): _____ **WORK UNIT(S):** USNPS - YNP

PART A: Minimum Requirement (should the action be done in proposed wilderness)
1 IS ACTION AN EMERGENCY?

YES

NO

 ACT ACCORDING TO
APPROVED EMERGENCY
MINIMUM TOOL CRITERIA

 Answer: ☐ Yes ☒ No

Explain: Action is not under an immediate time constraint nor is it an immediate threat to human life safety.

2 DOES ACTION CONFLICT WITH LEGISLATION, PLANNED WILDERNESS GOALS, OBJECTIVES OR FUTURE DESIRED CONDITIONS?

YES

NO

DO NOT DO IT

 Answer: ☐ Yes ☒ No

Explain: There is no approved YNP Backcountry/Wilderness Plan to date. Under The Wilderness Act and NPS RM 41 Guidelines, this action must conform with the "Minimum Tool Concept"

3 IS ACTION PRE-APPROVED BY THE WILDERNESS AND BACKCOUNTRY OR OTHER PARK MANAGEMENT PLAN?

YES

NO

 DO ACCORDING TO
APPROVED CRITERIA

 Answer: ☐ Yes ☒ No

Explain: There is no approved YNP Backcountry Management Plan.

4 CAN ACTION BE ACCOMPLISHED THROUGH A LESS INTRUSIVE ACTION THAT SHOULD BE TRIED FIRST? (Visitor Education...)

YES

NO

DO IT

 Answer: ☐ Yes ☒ No

Explain:

5 CAN ACTION BE ACCOMPLISHED OUTSIDE OF PROPOSED WILDERNESS AND ACHIEVE ITS OBJECTIVES?

YES

NO

DO IT THERE

DO PART B

 Answer: ☐ Yes ☒ No

Explain: Treatment site is located in YNP's proposed wilderness.

PART B: Minimum Tool *(how the action should be done in proposed wilderness)*

DESCRIBE, IN DETAIL, ALTERNATIVE WAYS
TO ACCOMPLISH THE PROPOSED ACTION *

6

(These may include, primitive skill/tool, mechanized/
Motorized, and/or combination alternatives)

* Minimum questions to answer for each alternative:

What is proposed?

Where will the action take place?

When will the action take place?

